



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

requisite gift, in view of the strong probability that it will lead to a great advance in our knowledge of the heavenly bodies. Any one interested in this plan is invited to address the undersigned.

EDWARD C. PICKERING,

Director of the Observatory of Harvard College.  
Cambridge, Mass., U.S.A., September, 1892.

#### Naltunne Tunne Measures.

WHEN the writer was at the Siletz Agency, Oregon, in 1884, he obtained the following units of measurement from Alex. Ross, the chief of the Naltunne tunne, an Athapascan people:—

1. The double arm's length, from the meeting of the tips of the thumb and forefinger of one hand to the meeting of the tips of the thumb and forefinger of the other hand.

2. Single arm's length, "one arm," extending from the tip of the middle finger along the extended arm to the shoulder-joint.

3. From the middle of the sternum along the extended arm to the meeting of the tips of the thumb and index finger.

4. From the inner angle of the elbow to the meeting of the tips of the thumb and index finger.

5. From the middle of the fore-arm to the meeting of the tips of the thumb and index finger.

6. From the first wrinkle of the wrist to the meeting of the tips of the thumb and index finger.

7. The width of the hand (when grasping a stick), "one grasp," equal to the width of four fingers (No. 11).

8. One finger width. 9. Two finger widths. 10. Three finger widths.

11. Four finger widths (the hand being open), equal to No. 7.

12. Five finger widths (including the thumb).

13. From the joint of the right shoulder horizontally across the body to the meeting of the tips of the thumb and forefinger of the extended left arm.

14. From the tip of the right elbow (the right arm being bent and held horizontally, the hand touching the shoulder) horizon-

tally across the body to the tip of the middle finger of the left hand, the left arm also being extended horizontally.

J. OWEN DORSEY.

Takoma Park, D.C., Sept. 13.

#### Omaha Arrow-Measure.

THE Omaha use the following as their arrow-measure: From the inner angle of the elbow to the tip of the middle finger, and thence over the back of the hand to the wrist-bone.

J. OWEN DORSEY.

Takoma Park, D.C., Sept. 13.

#### BOOK-REVIEWS.

*Elementary Text-Book of Entomology.* By W. F. KIRBY. Second Edition. Revised and augmented. Ill. New York, Macmillan & Co. 281 p. 8°. \$3.

ENTOMOLOGISTS everywhere will welcome with pleasure this new edition of Kirby's handbook of reference to the study of insects. As compared with the first edition of the work, we find the present one improved by the addition of a carefully prepared index, and by an appendix and table of contents. The appendix adds considerable new and valuable matter, while the last-named feature answers admirably to present the main divisions of the classification of insects used by the author. Various schemes of the latter are briefly discussed in the introduction, but our space will only admit of our saying here that seven orders are adopted to which the lesser groups of all insects are referred. These are the *Coleoptera* (including *Strepsitera*), *Orthoptera* (including *Euplexoptera* and *Dictyoptera*), *Neuroptera* (including *Trichoptera*, *Thysanura*, *Collembola*, *Mallophaga*, and *Thysanoptera*), *Hymenoptera*, *Lepidoptera*, *Hemiptera* or *Rhynchota* (including the suborders *Hemiptera*—*Heteroptera* and *Hemiptera*—*Hemoptera*, and the *Anophura*), and *Diptera* (including *Aphaniptera* and possibly *Achreioptera*). Our author tersely defines these several

#### Publications Received at Editor's Office.

DOBBIN, L. and WALKER J. *Chemical Theory for Beginners.* New York, Macmillan & Co. 16°. 244 p. 70 cts.  
GEOLOGICAL SURVEY OF TEXAS. *Annual Report*, 1891. Austin, State. 8°. Paper. 470 p.  
KIRBY, W. F. *Elementary Text-Book of Entomology.* New York, Macmillan & Co. 8°. 282 p. Ill. \$3.  
WILKINSON, GEORGE. *The Voice.* 16°. Paper. 72 p.

#### Reading Matter Notices.

Ripans Tabules: for torpid liver.

Ripans Tabules banish pain.

#### FOR SALE.

The Paleontological Collection of the late U. P. James, of Cincinnati, Ohio. Many type specimens and thousands of duplicates. For further information address

JOSEPH F. JAMES,

U. S. Department of Agriculture,

WASHINGTON, D. C.

#### RESTORE YOUR EYESIGHT

Cataracts, scars or films can be absorbed and paralyzed nerves restored, **without the knife or risk.** Diseased eyes or lids can be cured by our **home treatment.** "We prove it." **Hundreds convinced.** Our illustrated pamphlet, "Home Treatment for Eyes," free. Don't miss it. **Everybody wants it.** "THE EYE," Glens Falls, N.Y.

#### INDEX

#### TO VOLUME XVIII OF SCIENCE

is in preparation, and will be issued at an early date.

#### Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

For Sale or Exchange.—The subscriber would like to receive cash offers, or an offer in exchange for the earlier volumes of Poggenдорff's *Annalen* and the later volumes of Silliman's *Journal*, upon the following list: Chenn—*Manuel de Conchyliologie*. 2 vols. Nearly 5,000 figures, some hand-colored. Paper. Paris, 1859. Edwards.—*Butterflies of N. A.* 2 vols. Plates hand-colored. Vol. I., half calf. Vol. II. in parts. Leyman, Agassiz, Hagen.—*Ills. Cat. Mus. Comp. Zool.* at Harvard. No. I. *Ophiuridae*. No. II., *Acalephae*. No. III., *Astacidae*. All bound in one volume. American Naturalist. Vols. I–VII. Cloth. Silliman's *Am. Jour. of Science and Arts*. Third Series. Vols. I–X. Cloth. Binney.—*Terrestrial Mollusks of N. A.* Colored plates. 4 vols. Stretch.—*Zygaenidae and Bombycidae of N. A.* Colored plates. Also a considerable library of monographs, reports, and scientific books, and a large number of duplicates of fossils, minerals and shells. E. A. STRONG, Ypsilanti, Mich., Sept., 1892.

Exchange.—I have the finest shells of *Anodonta corpulenta*, *Cypr*, and *Suborbiculata*, Say, in the world. Will exchange for fresh water, land, and marine shells, in large or small quantities. Have also for exchange 50 varieties of fresh water and land shells from Spoon River, Ill. Dr. W. S. STRODE, Lewistown, Ill.

To exchange for books on birds or insects, or for back volumes of *American Naturalist*: Ecker's "Anatomy of the Frog," Packard's "Guide," Guyot's "The Earth and Man," Rockhill's, "The Land of the Lamas," Parker's "Biology," Shoemaker's "Heredity, Health and Personal Beauty," Dexter's "The Kingdoms of Nature," all new. M. J. ELROD, Ill. Wes. Univ., Bloomington, Ill.

For Sale.—About 1087 volumes of the private library of Dr. Nicolas León, formerly director of the Museum at Morelia, embracing publications of special value for Mexicoologists, like those of Bishop Zumárraga (16th century), of Sigüenza y Gongora, of Aleman, etc., the *Missal* of Spinoza, all very scarce; manuscripts on the history of Michoacán and other Mexican States, on the Tarasco (the Indian language of Michoacán) and several works, of which the only copy known to exist is in this collection. Parties interested in the sale please address Dr. NIC. LEÓN, Portal de Matamoras, Morelia, Mexico.

#### Wants.

METALLURGICAL CHEMIST will give instruction in the metallurgy and chemical analysis of iron and steel. Complete or special courses applying to the manufacture of pig irons and steels, as well as to their uses. Address "METALLURGIST," care SCIENCE.

A GRADUATE of the University of Pennsylvania and a practical mineralogist of twenty years' experience desires to give his services and a cabinet of 25,000 specimens, all named, with about the same number of duplicates, in minerals, crystals, rocks, gems, fossils, shells, archaeological and ethnological specimens and woods to any institution desiring a fine outfit for study. The owner will increase the cabinet to 50,000 specimens in two years and will act as curator. Correspondence solicited from any scientific institution. J. W. HORTER, M.D., Ph.D., San Francisco, Cal., General P. O. Delivery.

WANTED.—A position as zoological artist in connection with a scientific expedition, institution or individual investigations. Experienced in microscopic and all scientific work. References given if desired. Address J. HENRY BLAKE, 7 Prentiss Place, N. Cambridge, Mass.

CHEMIST AND ENGINEER, graduate German Polytechnic, Organic and Analytical, desires a position in laboratory or chemical works. Address 213½ E. 7th Street, New York, care Levy.

A MAN, 36 years old, of extensive experience, having the degrees of A.M. and Ph.D., desires a first-class opening as a teacher of Zoology and kindred studies in a college or university. Can furnish numerous testimonials or references as to success and skill in most modern laboratory methods. Address E. W. D., Md. Agr. College, College Park, Md.

A JOHNS HOPKINS graduate (1892) desires a position as instructor in mathematics and physics. Address A. B. TURNER, Johns Hopkins University, Baltimore, Md.

A YOUNG MAN, with a thorough training in Analytical Chemistry (including analysis of minerals, food, water, etc.), and holding a diploma of the School of Practical Science, of Toronto, and good testimonials, desires a position as Analytical Chemist or as assistant to such. Address to WM. LAWSON, 16 Washington Ave., Toronto, Ontario.

groups under their respective heads, in the various divisional chapters of the books which they constitute, while the minor groups below orders are treated under sections of these chapters with more or less detail.

Mr. Kirby, being an Englishman and a member of the British Museum staff, it is no more than natural that in his volume he has given British entomology especial consideration, but in so doing he has hardly impaired its value for a text-book to the science of the entire subject. Indeed, the American entomologist's library will be lacking a most useful auxiliary to monographic treatises unless possessed of a copy of this manual. Of all the species making up his seven orders, he states that no less than 12,600 are to be found in Britain, as compared with the 270,000 making up the insect fauna of the world. We see the book's greatest weakness in his introduction, where not sufficient attention has been given to the anatomy of insects, their study from a general standpoint, their distribution in time, their taxonomy and similar matters, all of which give the works of Packard such a peculiar value. Not a single cut illustrates the fourteen pages devoted to his introduction in a volume of nearly three hundred. On the other hand, it would be hard to accord too much praise to the 650 figures contained on 87 plates that embellish the book. To the general student, as a means of diagnosis of the main groups, they must prove of the very greatest assistance, portrayed as they are with marked accuracy, strength, and clearness. For the purpose mentioned, the *Coleoptera* are especially good, bold, and well drawn, though perhaps lacking in that refinement of detail which lends such beauty to the productions of Riley's pencil. Throughout the pages of Mr. Kirby's work we are pleased to find that he has not altogether neglected to consider the economic importance, or the reverse, of many insects to the agriculturalist, and to vegetation, forests, and plant-life, generally—a department now attracting such universal attention in this country.

Upon the whole, we may say that this handsomely gotten-up manual presents but little for adverse criticism, when we come to consider what the volume aims to give, while it offers a great deal to commend it, and it is a work that any entomologist in this country will be proud to see upon the shelves of his library, as it is one that the student of entomology will be constantly called upon to consult.

R. W. SHUFELDT.

*Primitive Man in Ohio.* Vol. I. By WARREN K. MOOREHEAD. New York, G. P. Putnam's Sons. 246p. 8vo. Illustrated.

THE problem, Who were the mound builders? has long been one which has interested students of the antiquities of the valley of the Ohio, without much unanimity of conclusion on the part of those who undertook to answer it. Whoever these ancient peoples were, Mr. Moorehead and his collaborators in the work before us have been enabled by a series of admirably conducted investigations to throw a new light on their arts and institutions. These collaborators are Mr. Gerard Fowke, Dr. H. T. Cresson, and Mr. W. H. Davis; each of whom contributes one or two chapters to the book, on special fields.

After an opening chapter on palæolithic man, there are descriptions of excavations in various sites, the most celebrated of which are Fort Ancient, Madisonville, and Hopewell's Tumuli. The discoveries in the latter were especially rich, and will figure prominently in the archaeological department of the Chicago Exhibition. They are particularly interesting as indicative of an extended use of metals, notably copper.

An examination of the skulls unearthed shows the contemporary existence of two groups, the one short-headed, the other long-headed; or, are they simply two cranial forms within the same population? This seems quite as likely.

The illustrations in the work are faithfully and well executed from the objects, and add both to the beauty and utility of the volume.

## Dyspepsia

Dr. T. H. Andrews, Jefferson Medical College, Philadelphia, says of

**Horsford's Acid Phosphate.**

"A wonderful remedy which gave me most gratifying results in the worst forms of dyspepsia."

It reaches various forms of Dyspepsia that no other medicine seems to touch, assisting the weakened stomach, and making the process of digestion natural and easy.

Descriptive pamphlet free on application to  
Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

For sale by all Druggists.

## LITERARY OUTFIT FREE.

Any one sending us \$1.00 at once and mentioning "Science," will receive a copy of "Historical Sketches and Events in the Colonization of America," by G. B. Hall. A square 8vo. book (6½x9 inches), 223 pages, illustrated. This is a regular \$2.00 book and a bargain at that price. \$2.00  
200 Private Library Labels; they should be used by all who own books. 50  
"The Library," a 100-page book containing a brief list of most important standard and miscellaneous books in every department of literature. Intended for those who are about forming a library. Hints about what books to read and how to buy them. 50  
1 year's subscription to the "Literary Light," a monthly magazine of Ancient, Mediæval and Modern Literature. 1 00

\$4.00 actual value for \$1.00. Sample copy of "Literary Light," 10 cents (postal card won't do).  
Address, **Literary Light,**  
243 4th Ave. S. Minneapolis, Minn.

## ADDRESS ON THE DEVELOPMENT OF THE MEMORY

To introduce a series of valuable educational works the above will be sent to all applicants

**FREE**

Room **JAMES P. DOWNS, PUBLISHER,**  
327. 243 BROADWAY, NEW YORK.

**NEW ARC LAMP**  
**COLLEGE PROJECTOR**  
FOR INCANDESCENT CURRENT.  
ABSOLUTELY STEADY LIGHT.  
SEND FOR CIRCULAR TO  
**J.W. QUEEN & CO.**  
PHILA. PA.

**MINERALS.** Cabinet Specimens, Collections, and Minerals, material by the pound, for mineralogists, collectors, colleges, schools, and chemists. Send for 100-page catalogue, paper bound, 15 cents; cloth bound, 25 cents; supplement, 2 cents. Geo. L. ENGLISH & Co., Mineralogists, 733 & 735 B'way, N. Y.

## THE WEEKLY BULLETIN OF NEWSPAPER AND PERIODICAL LITERATURE.

Catalogues and Classifies Each Week

**THE PRINCIPAL CONTENTS OF  
THE PERIODICAL PRESS.**

That huge mass of material heretofore inaccessible to the eager student is now rendered available. Special attention is invited to the Bulletin's

## INDEX OF TECHNICAL LITERATURE

Send for a free sample copy and learn how

**The Bulletin Supplies  
The Articles Catalogued.**

Address **THE WEEKLY BULLETIN,**  
5 Somerset Street, - - Boston, Mass.



A perfect and practical Type Writing machine for only ONE DOLLAR. Exactly like cut; regular Remington type; does the same quality of work; takes a fool's cap sheet. Complete with paper holder, automatic feed, perfect type wheel & inking roll; uses copying ink. Size 3x4x9 inches; weight, 12 oz. Satisfaction guaranteed; Circulars free; AGENTS WANTED. Sent by express for \$1.00; by mail, 15c. extra for postage. **R. H. INGERSOLL & Bro.** 65 Cortlandt St. N. Y. City.

## PATENTS

For INVENTORS. 40-page BOOK FREE. Address  
W. T. Fitzgerald, Attorney at Law, Washington, D.C.

Arnold,  
Constable & Co.

Fall Hosiery.

Merino, Silk and Balbriggan  
Hose and Half Hose.

"CARTWRIGHT & WARNER'S"

CELEBRATED

MERINO & NATURAL WOOL  
UNDERWEAR.

PURE SILK AND SPUN SILK  
UNDERWEAR.

LADIES' SUEDE GLOVES,  
GENTLEMEN'S DRIVING GLOVES,  
GENTLEMEN'S REINDEER GLOVES.

Broadway & 19th St.

NEW YORK.

THE  
American Bell Telephone  
COMPANY.

95 MILK ST., BOSTON, MASS.

This Company owns the Letters  
Patent granted to Alexander Graham Bell, March 7th, 1876, No. 174,465, and January 30, 1877, No. 186,787.

The Transmission of Speech by all known forms of ELECTRIC SPEAKING TELEPHONES infringes the right secured to this Company by the above patents, and renders each individual user of telephones, not furnished by it or its licensees, responsible for such unlawful use, and all the consequences thereof and liable to suit therefor.

JOHN IRELAND'S Bookstore, 1197 Broadway

near 29th St., is convenient to the residence quarter of the city; it is a good place to drop into on the way up or down town to select books or stationery. His stock is well selected and embraces all the new and standard books as soon as issued. Out-of-town purchasers can order by mail with every confidence that their wants will be as well supplied as if buying in person.

AUTHORS AND PUBLISHERS.

Material arranged and compiled for all kinds of works, excepting fiction. Statistics a specialty. Indexing and cataloguing. Address G. E. BIVER, 835 N. 16th Street, Philadelphia.

BACK NUMBERS and complete sets of leading Magazines. Rates low. AM. MAG. EXCHANGE, Schenectady N.Y.

## TO THOSE INTERESTED IN SCIENCE.

[Science (weekly) established in 1883, N. D. C. HODGES,  
874 Broadway, New York City.]

Titles of Some Articles Published in *Science* since  
Jan. 1, 1892.

Aboriginal North American Tea.  
Actinism.  
Agriculture, Experimental, Status of.  
Amenhotep, King, the tomb of.  
Anatomy, The Teaching of, to Advanced Medical Students.  
Anthropology, Current Notes on.  
Architectural Exhibition in Brooklyn.  
Arsenical Poisoning from Domestic Fabrics.  
Artesian Wells in Iowa.  
Astronomical Notes.  
Bacteria, Some Uses of.  
Bird on Its Nest, The.  
Birds Breeding at Hanover, N. H.  
Botanical Laboratory, A.  
Botanists, American and Nomenclature.  
Brain, A Few Characteristics of the Avian.  
Bythoscopidae and Cereopidae.  
Canada, Royal Society of.  
Cells, The Question of the.  
Chalkootherium, The Ancestry of.  
Chemical Laboratory of the Case School.  
Children, Growth of.  
Collection of Objects Used in Worship.  
Cornell, The Change at.  
Deaf, Higher Education of the.  
Diamonds in Meteorites.  
Diphtheria, Tox-Albumin.  
Dynamics, Fundamental Hypotheses of.  
Electrical Engineer, The Technical Education of.  
Eskimo Throwing Sticks.  
Etymology of two Iroquoian Compound Stems.  
Eye-Habits.  
Eyes, Relations of the Motor Muscles of, to Certain Facial Expressions.  
Family Traits, Persistency of.  
Fishes, The Distribution of.  
Fossils, Notice of New Gigantic.  
Four-fold Space, Possibility of a Realization of.  
Gems, Artificial, Detection of.  
Glacial Phenomena in Northeastern New York.  
Grasses, Homoptera Injurious to.  
Great Lakes, Origin of the Basins of.  
"Healing, Divine."  
Hemipterus Mouth, Structure of the.  
Hofmann, August Wilhelm von.  
Hypnotism among the Lower Animals.  
Hypnotism, Traumatic.  
Indian occupation of New York.  
Infant's Movements.  
Influenza, Latest Details Concerning the Germs of.  
Interest in Popular Dread in New Mexico.  
Inventions in Foreign Countries, How to Protect.  
Inventors and Manufacturers Association.  
Iowa Academy of Sciences.  
Jargon, The Chinook.  
Jassidae, Notes on Local.  
Keller, Helen.  
Klamath Nation, Linguistics.  
Laboratory Training, Aims of.  
Lewis H. Carvill, Work on the Glacial Phenomena.  
Lightning, New Method of Protecting Buildings from.  
Lion Breeding.  
Lissajous's Curves, Apparatus for the Production of.  
Maize Plant, Growth and Chemical Composition of.  
Maya Codices, a Key to the Mystery of.  
Medicine, Preparation for the Study of.  
Mineral Discoveries, Washington.  
Museums, The Support of.  
Palenque Tablet, a Brief Study of.  
Patent Office Building, The.  
Physa Heterostrophala Lay, Notes on the Fertility of.  
Pict's House, A.  
Pocket Gopher, Attempted Extermination of.  
Polariscopes, Direct Reflecting.  
Psychological Laboratory at Toronto.  
Psychological Training, The Need of.  
Psylla, the Pear-Tree.  
Rain-Making.  
Rice-Culture in Japan, Mexico and the United States.  
Rivers, Evolution of the Loup, in Nebraska.  
Scientific Alliance, The.  
Sistrurus and Crotalophorus.  
Star Photography, Notes on.  
Star, The New, in Auriga.  
Storage of Storm-Waters on the Great Plains.  
Teaching of Science.  
Tiger, A New Sabre-Toothed, from Kansas.  
Timber Trees of West Virginia.  
Trachea of Insects, Structure of.  
Vein-Formation, Valuable Experiments in.  
Weeds as Fertilizing Material.  
Weeds, American.  
Will, a Recent Analysis of.  
Wind-Storms and Trees.  
Wines, The Sophisticated French.  
Zoology in the Public Schools of Washington, D. C.

Some of the Contributors to *Science* Since Jan. 1, 1892.

Aaron, Eugene M., Philadelphia, Pa.  
Allen, Harrison, Philadelphia, Pa.  
Ashmead, Albert S., New York City.  
Bailey, I. H., Cornell University, Ithaca, N. Y.  
Baldwin, J. Mark, University of Toronto, Canada.

Ball, V., C. B., LL.D., F.R.S., Dublin, Ireland.  
Barnes, Charles Reid, Madison, Wis.  
Baur, G., Clark University, Worcester, Mass.  
Beal, W. J., Agricultural College, Mich.  
Beals, A. H., Milledgeville, Ga.  
Beauchamp, W. M., Baldwinsville, N. Y.  
Bell, Alexander Graham, Washington, D. C.  
Boas, Franz, Clark University, Worcester, Mass.  
Bolley, H. L., Fargo, N. Dak.  
Bolles, Frank, Cambridge, Mass.  
Bostwick, Arthur E., Montclair, N. J.  
Bradley, Milton, Springfield, Mass.  
Brinton, D. G., Philadelphia, Pa.  
Call, E. Ellsworth, Des Moines, Ia.  
Chandler, H., Buffalo, N. Y.  
Comstock, Theo. B., Tucson, Arizona.  
Conn, H. W., Middletown, Conn.  
Coulter, John M., Indiana University.  
Cragin, F. W., Colorado Springs, Col.  
Cresson, Hilborne T., Philadelphia, Pa.  
Davis, W. M., Harvard College, Cambridge, Mass.  
Dimmock, George, Canobie Lake, N. H.  
Dixon, Edward T., Cambridge, England.  
Farrington, E. H., Agric. Station, Champaign, Ill.  
Ferree, Barr, New York City.  
Fessenden, Reginald A., Lafayette, Ind.  
Flexner, Simon, Johns Hopkins, Baltimore, Md.  
Foshay, P. Max, Rochester, N. Y.  
Gallaudet, E. M., Kendall Green, Washington, D. C.  
Garman, S., Mus. Comp. Zool., Cambridge, Mass.  
Gibbs, Morris, Kalamazoo, Mich.  
Golden, Katherine R., Agric. College, Lafayette, Ind.  
Grinnell, George B., New York City.  
Hale, Edwin M., Chicago, Ill.  
Hale, George S., Boston, Mass.  
Hale, Horatio, Clinton, Ontario, Canada.  
Hall, T. Proctor, Clark University, Worcester, Mass.  
Halsted, Byron D., Rutg. Coll., New Brunswick, N. J.  
Haworth, Erasmus, Oskaloosa, Iowa.  
Hay, O. P., Irvington, Ind.  
Haynes, Henry W., Boston Mass.  
Hazen, H. A., Weather Bureau, Washington, D. C.  
Hewitt, J. N. B., Bureau of Ethnol., Washington, D. C.  
Hicks, L. E., Lincoln, Neb.  
Hill, E. J., Chicago, Ill.  
Hill, Geo. A., Naval Observatory, Washington, D. C.  
Hitchcock, Romyn, Washington, D. C.  
Holmes, E. L., Chicago, Ill.  
Hoskins, L. M., Madison, Wis.  
Hotchkiss, Jed., Staunton, Va.  
Houston, Edwin J., Philadelphia, Pa.  
Howe, Jas. Lewis, Louisville, Ky.  
Hubbard, Gardner G., Washington, D. C.  
Jackson, Dugal C., Madison, Wisconsin.  
James, Joseph F., Agric. Dept., Washington, D. C.  
Johnson, Roger B., Miami University, Oxford, O.  
Keane, A. H., London, England.  
Kellerman, Mrs. W. A., Columbus, O.  
Kellicott, D. S., State University, Columbus, O.  
Kellogg, D. S., Plattsburgh, N. Y.  
Lintner, J. A., Albany, N. Y.  
Loeb, Morris, New York City.  
Mabery, Charles F., Cleveland, Ohio.  
Macloskie, G., Princeton, N. J.  
McCarthy, Gerald, Agric. Station, Raleigh, N. C.  
MacDonald, Arthur, Washington, D. C.  
MacGregor, J. C., Halifax, Nova Scotia.  
MacRitchie, David, Easter Logie, Perthshire, Scotland.  
Marshall, D. T., Metuchen, N. J.  
Mason, O. T., Smithsonian Inst., Washington, D. C.  
Mill-paugh, Charles F., Morgantown, W. Va.  
Morse, Edward S., Salem, Mass.  
Nichols, C. F., Boston, Mass.  
Nuttall, George H. F., Johns Hopkins, Baltimore, Md.  
Oliver, J. E., Cornell University, Ithaca, N. Y.  
Osborn, Henry F., Columbia College, New York City.  
Osborn, Herbert, Agricultural College, Ames, Iowa.  
Pammel, L. H., Agricultural Station, Ames, Iowa.  
Pillsbury, J. H., Smith College, Northampton, Mass.  
Poteat, W. L., Wake Forest, N. C.  
Preble, Jr., W. P., New York City.  
Prescott, Albert B., Ann Arbor, Mich.  
Riley, C. V., Washington, D. C.  
Ruffner, W. H., Lexington, Va.  
Sanford, Edmund C., Clark Univ., Worcester, Mass.  
Scripture, E. W., Clark University, Worcester, Mass.  
Seler, Dr. Ed., Berlin, Germany.  
Shufeldt, R. W., Washington, D. C.  
Slade, D. D., Museum Comp. Zool., Cambridge, Mass.  
Smith, John B., Rutgers Coll., New Brunswick, N. J.  
Southwick, Edmund B., New York City.  
Stevens, George T., New York City.  
Stevenson, S. Y., Philadelphia, Pa.  
Stone, G. H., Colorado Springs, Col.  
Taylor, Isaac, Settrington, England.  
Thomas, Cyrus, Washington, D. C.  
Thurston, R. H., Cornell University, Ithaca, N. Y.  
Todd, J. E., Tabor, Iowa.  
True, Frederick W., Nat. Mus., Washington, D. C.  
Turner, C. H., Univ. of Cincinnati, Cincinnati, O.  
Wake, C., Staniland, Chicago, Ill.  
Ward, R. DeC., Harvard Univ., Cambridge, Mass.  
Ward, Stanley M., Scranton, Pa.  
Warder, Robert B., Howard Univ., Washington, D. C.  
Welch, Wm. H., Johns Hopkins, Baltimore, Md.  
West, Gerald M., Clark University, Worcester, Mass.  
Whitman, C. O., Clark University, Worcester, Mass.  
Williams, Edward H., Lehigh Univ., Bethlehem, Pa.